

Preservation Education on Midway Atoll

I now find myself doing preservation work on Midway Atoll, a tiny speck of land 1,200 miles northwest of Honolulu. Midway is one of those rare spots that had no human inhabitants before it was discovered in 1859. Shipwreck survivors wrote its early history with its first residents-by-choice arriving in April 1903. Twenty-three men were put ashore to set up a linking station for the first around-the-world telegraph transmission. The cable arrived just in time for Teddy Roosevelt's Fourth of July greeting a few months later.

The Commercial Pacific Cable Company started out in pre-fab buildings, but by 1905 they had moved into five permanent reinforced concrete structures designed by Henry H. Meyers of San Francisco. The buildings still stand today, looking quite picturesque with their hipped roofs and surrounding verandas framed by banyan trees. Each building has the same mass, yet each was designed with a very specific purpose: cable office, barracks, mess hall, superintendent's house, and servants' quarters. The two-story buildings are laid out in a quadrangle with a one-story servants' quarters building pushed off to one side.

The four principal cable buildings served as one of the work assignments for an Elderhostel service program that I led. An Elderhostel service program takes people 55 years and older and puts them to work on volunteer projects. I received a new crew every two weeks and worked with them on various preservation projects around the island, including drawing plans and creating a condition assessment report for the cable buildings.

Prior to the arrival of the Cable Company, Midway was a desolate atoll with little on it but sand, some small shrubs, and

millions of seabirds. The atoll contains three islands within a five-mile ring of coral: Sand, Eastern, and Spit. Sand is the largest at 1,201 acres and was the first to be occupied. Japanese egg hunters used the atoll as a stop in which to gather albatross eggs for pickling. Midway was officially made a possession of the United States in 1867; however, it wasn't until the Cable Company's arrival in 1903 that the egg poachers were banned from the island. The Cable Company brought in shiploads of soil in which to grow food and to plant trees to make the island more hospitable. The dirt stabilized the soil but also brought in all of the insects (e.g., ants, termites, and cockroaches) that appear on the island today.

The next highlight in the history of Midway came in 1935 when Pan Am decided to expand its air routes across the Pacific and made Midway one of its stopovers. Huge flying boats made the trek once a week from San Francisco to Manila using Midway as a stepping stone. The planes landed in the lagoon within the atoll and disembarked passengers onto an awaiting boat for a short ride to the Pan Am Hotel. The flights were reserved for the elite who spent their time at such activities as playing golf on the brilliant white sand with black golf balls or diving into the lagoon sporting "underwater goggles."

Pacific Commercial Cable Company superintendent's house with banyan tree.



A few years after Pan Am got going on Midway, the Navy became interested in the atoll as a strategic site to counter the threats of Japan in the Pacific. In 1938 construction began on a harbor to serve primarily as a forward submarine and seaplane base and on an airstrip on Eastern Island. Albert Kahn's architecture office was commissioned to design a naval base on Sand in 1939. Kahn had started his firm in 1896 and built a reputation for designing cutting-edge factory buildings primarily for the auto industry. The office easily switched over to wartime production and was awarded \$200,000,000 worth of government commissions during World War II.

Most people have heard of Midway because of the World War II Battle of Midway. Many, however, do not know that Midway, along with Pearl Harbor, was attacked on December 7, 1941. Two Japanese destroyers shelled the base at night causing chaos and destruction, some of which can still be seen today in the form of shrapnel damage to steel building members. On June 4, 1942, the Battle of Midway was begun with a Japanese bombardment of the atoll by 108 planes in an attempt to neutralize American air power on the ground and clear the way for an invasion force. Fortunately for the Americans, they had broken the Japanese code and knew much about the attack beforehand. The rest, as they say, is history with the Americans sinking four Japanese aircraft carriers, effectively turning the tide against Japan in the Pacific.

Marge Baldwin trimming off glazing compound at Midway recreation complex's game room.

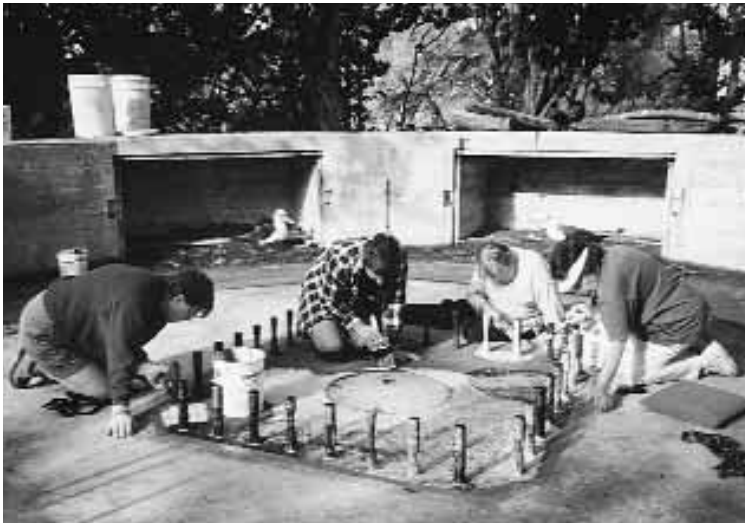


During World War II, up to 15,000 men were stationed on Midway's 1,500 acres. However, within a year after the war, the Naval Air Station was put into caretaker status with less than 300 men assigned to the atoll. The Korean War re-activated the base, as did the Vietnam War, but it was the DEW (Distant Early Warning) line begun in 1958 that truly re-vitalized the base. At that time, \$40,000,000 was sunk into Midway to make it the home for a squadron of planes that ran a continuous picket line between the atoll and Adak in the Aleutian chain. For years there was a Constellation leaving Midway every four hours, 24-hours a day, watching via radar for any Soviet incursions. Many of the structures, including an enormous hangar, remain on the island from the 1958 build-up.

I started work on Midway in October 1998 having been hired by Oceanic Society out of San Francisco to lead the preservation program on Midway. My first groups worked on several of the World War II remnants on the atoll. We cleaned out and conserved the metal on three 5" gun emplacements. These gun batteries are basically 30' wide concrete octagons placed on 20' high sand hills. For 50 years plant material had been allowed to accumulate taking its toll on the steel gun mounts. We also meticulously stripped 16 coats of paint off of a 5" gun and repainted it. We found grease fittings that still held lubrication, every part number, and many elements that still moved on the 20' long gun. And we undertook drastic measures to stabilize a 3" gun on Eastern Island. The 16' long gun was simply a lump of rust in the shape of a gun. We treated it with a rust-converting product that chemically reacted with the iron oxide to produce tannic oxide, which provided a stable, paintable surface. We then coated the gun with a rust-inhibitive primer and two enamel top coats.

My last two groups rehabilitated steel casement windows. The windows were in the recreation complex designed by Kahn's office in 1940 and were original to the building. Very little maintenance had been performed on the windows over the building's nearly 60-year life. Many of the panes were broken and most of the windows were inoperable.

Window rehab, I have found, is a perfect vehicle for hands-on preservation training. There's a variety of tasks, there's satisfaction in completing a job, there's tremendous cost savings as restoring windows is very labor intensive,



Elderhostellers and leader brushing on rust converter at Battery A East, Midway Atoll.

training is minimal, new skills are learned, and trainees can work indoors when it rains.

The windows we worked on were in the former game room of the recreation complex. The group stripped the windows down to bare metal, repainted and then reglazed them. It was apparent that the original exterior sash color was almost a British racing green, but since the only color available on the island was navy gray, plans are to top coat the windows with green during the next season. Logistics are a nightmare on Midway. It's one thing to not have a Home Depot just up the road, it's quite another to wait six months for a barge with your materials.

In addition to hands-on preservation work, we also archived the vast piles of paper that had been accumulating on the history of Midway. Almost every group got a chance to inventory some of the documents and then enter citations into a searchable database. What we created was a usable and secure archive that people should feel confident in contributing to. The groups also had an opportunity to interview several veterans of Midway to permanently record their memories of life on Midway.

In 1986, nine properties associated with World War II were designated the Midway Atoll National Historic Landmark. In 1992, 72 additional properties were listed as eligible for the National Register, but as part of the base's closure, 11 of those structures plus three of the NHL properties were demolished. After three years of clean up, the Navy handed the base over to the U.S. Fish and Wildlife Service.

Today, Fish and Wildlife operates the refuge through a cooperative agreement with Midway Phoenix. Midway Phoenix provides for the infra-

structure and keeps the base running as a tourist destination. Oceanic Society runs the educational programs on the island, which includes spinner dolphin research and seabird research, as well as the brand new historic preservation program. Fish and Wildlife, meanwhile, cares for the natural aspects of the atoll, including the 750,000 albatross that make Midway their home. So far, the cooperative agreement is working and that allows for some valuable preservation work to be done on the atoll.

As with most any preservation program, funding is difficult. However, a bright spot has appeared on Midway's horizon. It was recently announced that Midway is a recipient of a Save America's Treasures grant. Launched by the White House in early 1998, the Save America's Treasures program was created to see that the nation's most important historic sites and objects make it into the new millennium. This funding will give a much needed boost to the preservation of Midway's historic structures and objects.

David Pinyerd is currently working on his thesis concerning the preservation of Life-Saving Service and early Coast Guard architecture in Oregon.

Photos by the author.

Suggested Reading

Samuel Eloit Morrison, *Coral Sea, Midway and Submarine Actions: History of the United States Naval Operations in World War II*, 1949.

Mitsuo Fuchida, *Midway: the Battle that Doomed Japan*, 1993.

Gordon Prange, *Miracle at Midway*, 1983.

Robert D. Ballard, *Return to Midway: The Quest to Find the Lost Ships from the Greatest Naval Battle of the Pacific*, 1999.

Recommended Web Sites

Pacific Naval Battles in World War II
<<http://www.skypoint.net/members/jbp/map.htm>>

Midway: Americas Four Most Important Days
<<http://www.centuryinter.net/midway/midway.html>>

Return to Midway
<<http://www.nationalgeographic.com/features/98/midway>>

*Harry A. Butowsky
NPS Historian*